

CLAIMS

1. A method in a wireless communication system for mitigating power-control errors during a soft handoff of a mobile unit, the method comprising:
- 5 programming a plurality of base stations with a uniform power-control bit pattern to be sent to the mobile unit during a plurality of power-control bit times, before the mobile unit is acquired on a reverse link; and
- timing transmissions of the uniform power-control bit pattern such that the plurality of base stations, when transmitting, send identical power-
- 10 control bits during each of the plurality of power-control bit times.
2. The method of claim 1,
- wherein programming the plurality of base stations with the uniform power-control bit pattern comprises programming a pattern that requires
- 15 more than a single transmission frame of a forward link from a base station to the mobile unit before the pattern repeats, and
- wherein timing the transmissions comprises synchronizing the transmissions from each of the plurality of base stations such that the transmissions start at substantially identical times.

20

3. The method of claim 1,

wherein programming the plurality of base stations with the uniform power-control bit pattern comprises programming a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base

5 station to the mobile unit, and

wherein timing the transmissions comprises starting the transmissions at substantially identical points within different ones of the plurality of transmission frames.

10 4. The method of claim 1,

wherein programming the plurality of base stations with the uniform power-control bit pattern comprises programming a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

15 wherein timing the transmissions comprises starting the transmissions at substantially identical points within a specific one of the plurality of transmission frames.

5. The method of claim 1,

20 wherein timing the transmissions comprises synchronizing the transmissions through a synchronization signal made available to the plurality of base stations.

6. An apparatus for use in a wireless communication system for mitigating power-control errors during a soft handoff of a mobile unit, the apparatus for use with a base station of a plurality of base stations attempting to communicate with the mobile unit, the apparatus comprising:

5 a processor for controlling the base station;
a memory element coupled to the processor for programming the processor, the memory element comprising a uniform power-control bit pattern to be sent by different ones of the plurality of base stations to the mobile unit during a plurality of power-control bit times, before the mobile unit is acquired on a reverse
10 link; and

a synchronizer coupled to the processor for cooperating with the processor to time transmissions of the uniform power-control bit pattern such that the plurality of base stations, when transmitting, send identical power-control bits during each of the plurality of power-control bit times.

15

7. The apparatus of claim 6,

wherein the uniform power-control bit pattern is a pattern that requires more than a single transmission frame of a forward link from the base station to the mobile unit before the pattern repeats, and

20

wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at substantially identical times.

8. The apparatus of claim 6,

wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

5 wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at substantially identical points within different ones of the plurality of transmission frames.

10 9. The apparatus of claim 6,

wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

15 wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at a substantially identical point within a specific one of the plurality of transmission frames.

10. The apparatus of claim 6,

20 wherein the synchronizer is arranged and programmed to synchronize the transmissions through a synchronization signal made available to the plurality of base stations.

11. A base station for use in a wireless communication system for mitigating power-control errors during a soft handoff of a mobile unit, the base station being one of a plurality of base stations attempting to communicate with the mobile unit, the base station comprising:

- 5 a processor for controlling the base station;
- a wireless transceiver coupled to the processor for providing wireless communications for the base station;
- a memory element coupled to the processor for programming the processor, the memory element comprising a uniform power-control bit pattern to
- 10 be sent by different ones of the plurality of base stations to the mobile unit during a plurality of power-control bit times, before the mobile unit is acquired on a reverse link; and
- a synchronizer coupled to the processor for cooperating with the processor to time transmissions of the uniform power-control bit pattern such that
- 15 the plurality of base stations, when transmitting, send identical power-control bits during each of the plurality of power-control bit times.

12. The base station of claim 11,

- wherein the uniform power-control bit pattern is a pattern that
- 20 requires more than a single transmission frame of a forward link from the base station to the mobile unit before the pattern repeats, and

 wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at substantially identical times.

13. The base station of claim 11,

wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from

5 the base station to the mobile unit, and

wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at substantially identical points within different ones of the plurality of transmission frames.

10

14. The base station of claim 11,

wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

15

wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at a substantially identical point within a specific one of the plurality of transmission frames.

20

15. The base station of claim 11,

wherein the synchronizer is arranged and programmed to synchronize the transmissions through a synchronization signal made available to the plurality of base stations.

16. A wireless communication system infrastructure for mitigating power-control errors during a soft handoff of a mobile unit, the infrastructure comprising:

a central controller for controlling the communication system infrastructure; and

5 a plurality of base stations coupled to the central controller for handling communications of the infrastructure, wherein a base station of the plurality of base stations comprises:

a processor for controlling the base station;

a wireless transceiver coupled to the processor for providing
10 wireless communications for the base station;

a memory element coupled to the processor for programming the processor, the memory element comprising a uniform power-control bit pattern to be sent by different ones of the plurality of base stations to the mobile unit during a plurality of power-control bit times, before the mobile unit is acquired on a reverse
15 link; and

a synchronizer coupled to the processor for cooperating with the processor to time transmissions of the uniform power-control bit pattern such that the plurality of base stations, when transmitting, send identical power-control bits during each of the plurality of power-control bit times.

20

17. The infrastructure of claim 16,

wherein the uniform power-control bit pattern is a pattern that requires more than a single transmission frame of a forward link from the base station to the mobile unit before the pattern repeats, and

5 wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at substantially identical times.

18. The infrastructure of claim 16,

10 wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of
15 base stations start at substantially identical points within different ones of the plurality of transmission frames.

19. The infrastructure of claim 16,

wherein the uniform power-control bit pattern is a pattern that repeats after a single one of a plurality of transmission frames of a forward link from the base station to the mobile unit, and

5 wherein the synchronizer is arranged and programmed such that the transmissions of the uniform power-control bit pattern from the plurality of base stations start at a substantially identical point within a specific one of the plurality of transmission frames.

10 20. The infrastructure of claim 16,

wherein the synchronizer is arranged and programmed to synchronize the transmissions through a synchronization signal made available to the plurality of base stations.